

LORNE J. DOUD

ORCHARDIST & NURSERYMAN

"Quality--Plus" Apples

Dwarf Apple Trees

R.I. Wabash, Indiana

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U.S. Department of Agriculture

DWARF APPLE TREE LIST--FALL, 1954 and SPRING, 1955

We offer the following trees for Fall, 1954 and Spring, 1955 delivery. Rootstock and scion variety are guaranteed true to name. These are strictly first-quality one-year-whips and branched trees that will give the best possible performance in the orchard.

If you need a combination that we do not list, we will bud your strain or variety on contract next July or August. We will gladly send a copy of our agreement upon request. This arrangement makes a somewhat cheaper tree.

Malling I Stock

Semi-dwarfing, producing early-bearing, medium-sized tree. Transplants easily and grows well in orchard. Has proved to be a particularly good stock for McIntosh. Suggested planting distance, 20 x 25 or 30 ft.

↙ Dbl. Red Delicious
↙ Dbl. Red Jonathan
↙ Lodi

↘ Maidenblush
↘ Dbl. Red McIntosh
↘ Redsumbo*

* Redsumbo is our own double-red strain of Summer Rambo. Greatly superior to the old-fashioned variety.

Malling II Stock

Semi-dwarfing, producing same sized tree as #I. One of the most promising of the Malling Stocks. Suggested planting distance, 20 x 25 or 30 ft.

Dbl. Red Delicious

Malling VII Stock

Dwarfing, producing smaller tree than #I. Best stock for orchardists desiring a true dwarf. Transplants well, giving excellent stand of trees in orchard. Planting distance, 15 x 25 ft.

Dbl. Red Delicious
Dbl. Red Jonathan
Dbl. Red McIntosh

↘ Red Rome
↘ Wealthy

Malling IX Stock

True dwarf, making smallest tree of entire Malling series. Early bearing, often producing bloom on two-year-old trees. Most varieties on this stock require staking after tree begins to bear. Some growers plant close enough in row to graft tips of branches together. Planting distance, 10 x 20 or 25 ft.

↙ Dbl. Red Delicious
↙ Golden Delicious
Dbl. Red Jonathan
Dbl. Red McIntosh

↘ N. Spy
↘ Redsumbo
↘ Dbl. Red Stayman
↘ Transparent

Malling XII Stock

Produces standard-sized tree. Row of trees on this stock will be very uniform in size and vigor since roots are all of same variety. Planting distance on smaller trees such as Rome and Transparent, 25 or 30 x 30 or 35 ft.

Red Rome

Malling XIII Stock Semi-dwarfing, making tree about size of those on #I and #II. Proved to be particularly good stock for Cortland. Also works very well with Jonathan and Golden Delicious. Suggested planting distance, 20 x 30 ft.

✓ Cortland
✓ Golden Delicious
✓ Jonathan

Red Rome
Dbl. Red Stayman

Malling XVI Stock Standard-sized tree giving good uniformity of size and vigor. Same planting distance as on #XII.

Red Rome
Dbl. Red Jonathan

Dbl. Red Stayman
Transparent

✓ Clark Dwarf/Hibernal Stock Dwarfing effect is produced by stem-piece of Clark wood grafted between hardy Hibernal trunk and scion-variety top. Makes same sized tree as Malling VII and the same planting distance is suggested.

Dbl. Red Delicious*

N. Spy*

* We have only two-year trees of these combinations.

Standard Stock

Redsumbo

Transparent

Hibernal

PRICES FOR 1-Yr. TREES*

	each 1-9	each 10-25	each 25 & over
Malling I, II, VII, IX, XIII, and Clark Dwarf/Hibernal	2.00	1.75	1.50
Malling XII, XVI	1.50	1.25	1.00
Standard	1.25	1.00	.75

* For two-year, branched trees, add 25¢ per tree.

These prices are f.o.b. our nursery 2 miles south and 1 mile west of Roann, Indiana. Baling and packing for shipment is charged extra at cost.

NEW VARIETIES
Price - \$2.00 each

Malling I Stock

✓ Milton

Clark Dwarf/Hibernal

✓ Ruby

Malling VII Stock

✓ Crandall
✓ Franklin
✓ Idared

✓ Melrose
✓ Monroe
✓ Ruby

14 YEARS OF EXPERIENCE WITH DWARF APPLE TREES

We began collecting dwarfing rootstock material in 1941. Our Malling series of stocks came directly from the Geneva, N. Y. Experiment Station and the Clark Dwarf from the Iowa Experiment Station. During the years from 1941 to the present, we have been propagating and building up our supply and producing budded trees for orchardists. Our first dwarf trees were planted in the orchard in 1946.

The following observations and comments are offered in response to inquiries regarding our experiences with this type of tree.

EFFECT OF ROOTSTOCK ON SIZE OF MATURE TREES AND SUGGESTED PLANTING DISTANCES

Size in Feet		Rootstock	Planting Distances
20		Standard Rootstock	30 x 35
		Malling XII	
		Malling XVI	
15		Malling I	20 x 30
		Malling II	
		Malling XIII	
10		Malling VII	15 x 25
		Clark Dwarf	
5		Malling IX	10 x 20

FACTORS OTHER THAN ROOTSTOCK AFFECTING SIZE OF MATURE TREES

(1) Scion Variety - On any given rootstock weaker-growing varieties such as Rome and Golden Delicious make a smaller tree at any age than vigorous varieties such as Spy and Summer Rambo. We have a small block of trees on IX planted in the Spring of 1949. The Golden Delicious are now only 5 to 6 ft. tall and have borne apples every year since planting. On the other hand the Redsumbo (Double-Red Summer Rambo) are nearly 10 ft. tall. Even though the IX rootstock has greatly dwarfed both varieties and encouraged early-bearing, the vigorous scion-variety is larger at 6 yrs. than the earlier-bearing, slower-growing one. In our plantings, we have tried to match the variety to the stock to produce the desired size tree.

(2) Soil - Any rootstock will grow a smaller tree on light, sandy soil than on heavy, rich soils. Thus, VII rootstock on rich soil may produce approximately the same size tree as I, II, or XIII on lighter, poorer soil.

(3) Training and Pruning - The present thinking is toward training dwarf apples to a low-headed, open-center type similar to a peach tree. Also, as in the case of peaches, a judicious heading-back type of pruning should be used to maintain the desired tree size after the tree has come into bearing and reached this size. The grower who has the desire and knowledge to use a consistent, size-controlling type of pruning is able to take a semi-dwarf stock like II and produce the same size tree at a given age as another person with trees on VII who merely lets them grow.

(4) Planting Distance - Many commercial growers are planting dwarf trees in a hedge-row system, planning to drive only one way through the orchard. Thus, we have suggested a planting distance of 20x30 for the semi-dwarf stocks. The trees are allowed to grow together in the row with space to drive only the 30' way. This plan allows a slightly larger tree with consequent larger bearing surface than the same number of trees per acre planted 25x25 with space to drive both directions.

(5) Conditions Affecting Fruit Setting - Dwarfing stocks cause all varieties to bloom earlier in their lives than is the case on standard stocks. However, if these first blossoms fail to set fruit because of frost, poor pollination, disease, spray injury or faulty nutrition, the tree goes ahead and continues to grow as vigorously as a standard non-bearing tree. Therefore, the grower who follows good cultural practices to encourage fruit set will get his dwarf trees into a bearing habit sooner.

DWARFING ROOTSTOCKS FOR THE COMMERCIAL ORCHARDIST

We have found that, actually, the semi-dwarf stocks such as I, II, and XIII are not radically-enough different from standard trees that any good apple grower should be afraid to try a percentage of his new plantings on these stocks. They are the same size as standard trees at planting time and start off growing as vigorously for the first year or two or three. They definitely cause any variety to bloom earlier and attain a bearing habit sooner, assuming other conditions are favorable to fruit setting. They enable any good grower to plant twice as many trees per acre, get into production sooner, reach maximum production per acre early in the life of the trees, yet maintain small tree size with a minimum of effort. In this way, the maximum yield per acre can be maintained throughout the life of the orchard, yet the small size of the trees will make all cultural operations easier and cheaper. This type tree thrives best on intensive treatment and are adapted for the grower who will take a special interest in them and give them the best possible care.

FOR FURTHER INFORMATION REGARDING DWARF APPLE TREES WRITE TO:

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